

REMARKS

In a telephonic interview on December 4, 2007 between the Examiner Jeffrie R. Lund and Applicants' representative Jack P. Friedman, agreement was reached that the following modifications of claim 1 would probably result in overcoming the prior art rejections of record:

(1) each ring is formed within a corresponding groove in the distribution plate such that each ring is the only ring within its corresponding groove;

(2) all channels of each ring are positioned at a same constant distance from the common point (e.g., center point) on the distribution plate; and

(3) each channel in a given ring is oriented at a same constant angle with respect to an exposed surface of the distribution plate.

Applicants have amended claims 1, 3, 6-7, 17, 19-20, 22, 25, and 28, and have canceled claims 2, 5, 7, 10, 12-16, 18, and 21 during prosecution of this patent application. Applicants are not conceding in this patent application that said amended and canceled claims are not patentable over the art cited by the Examiner, since the claim amendments and cancellations are only for facilitating expeditious prosecution of this patent application. Applicants respectfully reserve the right to pursue said amended and canceled claims, and other claims, in one or more continuations and/or divisional patent applications.

The Examiner objected to claims 21, 22, 25 and 28 under 37 CFR 1.75(c), as allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim.

The Examiner rejected claims 4 and 19 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

The Examiner rejected claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, US Patent 5,792,269, in view of Mitani *et al.*, JP 3-281780 and Carpenter *et al.*, US Patent 6,821,347 B2.

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, Mitani *et al.*, and Carpenter *et al.*, as applied to claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 above, and further in view of Plavidal *et al.*, US Patent 5,718,795.

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, Mitani *et al.*, and Carpenter *et al.*, as applied to claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 above.

The Examiner rejected claims 23, 26 and 29 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, Mitani *et al.*, and Carpenter *et al.*, as applied to claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 above, and further in view of Sasaki *et al.*, US Patent 6,685,848 B1.

Applicants respectfully traverse the claim objections, and both the § 112 and § 103 rejections, with the following arguments.

Claim Objections

The Examiner objected to claims 21, 22, 25 and 28 under 37 CFR 1.75(c), as allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. The Examiner argues: "The claims all depend on claim 1 and require a first fluid feed line is connected to a first source of a first fluid that supplies the first channels N_1 , and a second fluid feed line is connected to a second source of a second fluid that supplies the second channels N_2 . Claim 1 requires this same structure, therefore claims 21, 22, 25, and 28 fail to limit claim 1 from which they depend."

In response, have canceled claim 21, and have deleted from claims 22, 25, and 25 the language that the Examiner has objected to, namely the language: "wherein the first fluid feed line is connected to the source of the first fluid, wherein the second fluid feed line is connected to the source of the second fluid".

Applicants have also amended claim 1 to recite the language of canceled claim 21, which is alleged by the Examiner to be required by claim 1 and to therefore not further limit claim 1.

Applicants have also amended claim 22 to depend from claim 1 instead of from claim 21, since claim 21 has been canceled..

35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 4 and 19 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner argues: "Clams 4 and 19 recite the limitations "the first plurality of channels" and "the second plurality of channels". There is insufficient antecedent basis for this limitation in the claims."

In response, Applicants respectfully contend that claim 4 does not contain the limitations "the first plurality of channels" and "the second plurality of channels". Therefore, claim 4 is not unpatentable under 35 U.S.C. § 112, second paragraph.

Applicants respectfully believe that the Examiner intended to reject claim 3 rather than claim 4 under 35 U.S.C. § 112, second paragraph.

Accordingly, Applicants have amended claims 3 and 19 to clarify the invention in consistency with the Examiner's arguments.

35 U.S.C. § 103(a)

Claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28

The Examiner rejected claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, US Patent 5,792,269, in view of Mitani *et al.*, JP 3-281780 and Carpenter *et al.*, US Patent 6,821,347 B2.

Since claims 7 and 21 have been canceled, the rejection of claims 7 and 21 under 35 U.S.C. § 103(a) is moot.

Applicants respectfully contend that claims 1 and 17 are not unpatentable over Deacon in view of Mitani and Carpenter, because Deacon in view of Mitani and Carpenter does not teach or suggest each and every feature of claims 1 and 17.

As an example of why claims 1 and 17 are not unpatentable over Deacon in view of Mitani and Carpenter, Applicants maintain that Deacon in view of Mitani and Carpenter does not teach or suggest the following combination of features:

“wherein each ring of the I rings is formed within a corresponding groove in the distribution plate such that each ring is the only ring within its corresponding groove; ...

wherein a flow inlet of each channel of the at least 2 channels of each ring are positioned at a same constant distance from the common point”.

With respect to Deacon, the Examiner argues in the Advisory Action mailed 11/19/2007 that in Deacon, FIG. 19 for a given ring: the flow inlets of each channel having a radially outward flow component are at a smaller distance from the common point than are flow inlets of each channel having a radially inward flow component, which violates the requirement of “a same

constant distance from the common point” in the preceding feature of claims 1 and 17.

With respect to Figure 2 of Mitani, each groove (i.e., feeding hole group 21, 22, or 23) comprises holes (i.e., channels) having flow inlets at different distances from the common point.

Therefore, Deacon in view of Mitani and Carpenter does not disclose the preceding feature of claims 1 and 17.

Based on the preceding arguments, Applicants respectfully maintain that claims 1 and 17 are not unpatentable over Deacon in view of Mitani and Carpenter, and that claims 1 and 17 are in condition for allowance. Since claims 3, 8-9, 11, 22, 24, 25, 27 and 28 depend from claim 1, Applicants contend that claims 3, 8-9, 11, 22, 24, 25, 27 and 28 are likewise in condition for allowance. Since claims 19 and 20 depend from claim 17, Applicants contend that claims 19 and 20 are likewise in condition for allowance.

Claim 4

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, Mitani *et al.*, and Carpenter *et al.*, as applied to claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 above, and further in view of Plavidal *et al.*, US Patent 5,718,795.

Since claim 4 depends from claim 1, which Applicants have argued *supra* to not be unpatentable over Deacon in view of Mitani and Carpenter under 35 U.S.C. §102(b), Applicants maintain that claim 4 is likewise not unpatentable over Deacon in view of Mitani and Carpenter, and further in view of Plavidal under 35 U.S.C. §103(a).

Claim 6

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, Mitani *et al.*, and Carpenter *et al.*, as applied to claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 above.

Since claim 6 depends from claim 1, which Applicants have argued *supra* to not be unpatentable over Deacon in view of Mitani and Carpenter under 35 U.S.C. §102(b), Applicants maintain that claim 6 is likewise not unpatentable over Deacon in view of Mitani and Carpenter under 35 U.S.C. §103(a).

Claims 23, 26 and 29

The Examiner rejected claims 23, 26 and 29 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deacon *et al.*, Mitani *et al.*, and Carpenter *et al.*, as applied to claims 1, 3, 7-9, 11, 17, 19-22, 24, 25, 27 and 28 above, and further in view of Sasaki *et al.*, US Patent 6,685,848 B1.

Since claims 23, 26, and 29 depend from claim 1, which Applicants have argued *supra* to not be unpatentable over Deacon in view of Mitani and Carpenter under 35 U.S.C. §102(b), Applicants maintain that claims 23, 26, and 29 are likewise not unpatentable over Deacon in view of Mitani and Carpenter, and further in view of Sasaki under 35 U.S.C. §103(a).

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0456 (IBM).

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